# RG INNOVATIONS

## **Hot Water Flushing Trailer**



Hydraulics -Industrial / Mobile / Marine

**Automation -**Pneumatics / Electronics / Robotics

> Electromechanical **Systems**

Fluid Connectors -Instrumentation / Industrial

**Engineered Systems** and Solutions

**Factory Authorized** Repair Service

> Installation and Field Service

Vendor Managed **Inventory Services** 

#### The Challenge:

To transfer bulk natural gas, a pipeline requires compressor and regulator stations across it's numerous miles. Each compressor station has a condenser to eliminate excess free water that is often generated in the pipeline, and that requires regular maintenance. Routine maintenance should include flushing the condensers with a hot water and soap/degreaser solution because dirt and deposit buildup reduce the condenser's overall efficiency and the presence of free and vaporized water will decrease the price for the natural gas... not good!

## The RG Group Solution:

A Hot Water Flushing Trailer designed with two separate circuits.

The first circuit is a closed loop circuit that circulates inhibited propylene glycol 40/60 fluid (40% propylene glycol and 60% deionized water). The closed loop circuit consists of a 100 gallon insulated hydraulic reservoir filled with propylene glycol used in conjunction with the DynaMax HS boiler and a Tranter Plate and Frame heat exchanger. The concept is to heat the reservoir fluid to approximately 180° F in a closed loop circuit through the high flow-rated plate and frame heat exchanger.

The second circuit is for the user's incoming fresh water supply. It's an open loop circuit designed to pump 175 GPM by a water pump through a separate inlet/outlet on the plate and frame heat exchanger. The incoming fresh water is heated to the desired temperature by continuous flow through the heat exchanger.



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### Why it works:

By making the unit easy to use, cleaning the condenser is not only faster... being on-site cuts labor time and costs. The automatic controls and safety devices will keep workers safe on the job.

This unit can be built as a trailer or a skid-mounted system and is furnished with all the equipment required to perform a full day of cleaning condensers. It can be scaled to virtually any flow and temperature that the condenser manufacturers recommend for cleaning the unit.

#### **Fast Facts:**

- **Natural Gas boiler from** 800,000 BTU or larger
- 175 GPM Flow Main Pump
- **High Flow Heat Exchanger**
- Back-up pumps (quantity based on customer need)
- **Cam-Lok Fitted Hoses (quantity** based on customer need)
- 3100 PSI Pressure washer
- 6500 Watt Gas Generator
- ASME High Flow Filtration
- Heavy duty tandem axle trailer
- Comes with Safety and **Operations manuals**
- Flow controls, temperature and pressure sensors





#### **How it works:**

Looping the incoming fresh water supply circuit located near the large ASME Return Filter both heats and filters the incoming fresh water until the desired temperature is achieved. During the heating process the operator is able to connect the supplied 2" discharge hoses to the vessel that requires flushing. When the desired water temperature is achieved, the operator opens the Water Outlet and closes the Water Circulating Valve to introduce hot water to the desired vessel.

A soap and degreaser injection point has been installed in the fresh water discharge to help loosen deposits that build up. All returning flushing fluid will ultimately be filtered by the large ASME return filter.



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